

RETURN TO USE INITIATIVE

2004 Demonstration Project

H.O.D. LANDFILL:

Antioch, Illinois

The H.O.D. Landfill Superfund site (the Site) represents the first Superfund Redevelopment Initiative pilot awarded to a site where the construction of the remedy had been completed. Stakeholder activities conducted at the Site informed EPA about the needs and issues associated with returning construction complete sites to productive use and led to the development of the Return to Use Initiative.

THE SITE: The 121-acre Site in Antioch, Illinois, includes the 51-acre former landfill area and 70 acres of land used as a buffer for the landfill. Following its closure in 1984, site operators covered the landfill with a continuous clay cap. Subsequent remedial actions included leachate and gas extraction, waste cap improvements and monitored natural attenuation of ground water contamination.

THE OPPORTUNITY: EPA issued a Preliminary Closeout Report in 2001 and selected the Site for Superfund Redevelopment Initiative pilot support in 2002. Approximately 24,000 people live within three miles of the Site. The Site lies immediately east of the Antioch Community High School, which needed athletic fields to support a growing student population. The school superintendent saw the cleaned up, grass-covered landfill and its associated wetlands as potential amenities for not only the high school, but the local community as well. The Site's potentially responsible party (PRP), Waste Management Inc., had conducted cleanup in a way that would facilitate the future use of the Site as athletic fields.

THE BARRIERS: EPA worked with site stakeholders to determine how to move forward with the Site's redevelopment. Concerns about the Site's safety, fencing around the site area and access restrictions prohibiting use of the Site posed as barriers



PICTURED: The H.O.D. Landfill site prior to reuse. (source: EPA)

BARRIERS:

Overly stringent institutional controls and Superfund site stigma posed barriers to site reuse.

SOLUTION:

Innovative thinking by site stakeholders addressed barriers with several tools, including a revised risk assessment, an Explanation of Significant Differences and a Ready for Reuse Determination.



PICTURED: Playground equipment at the Tim Osmond Park located on the H.O.D. Landfill. (source: EPA)

BEFORE:

121 acres of cleaned up, grass-covered land sat vacant near the Antioch Community High School.

AFTER:

Today the Site houses athletic fields and facilities, provides energy to the high school and serves as restored wetland habitat.

that EPA and site stakeholders would have to overcome to redevelop the Site.

THE SOLUTION: EPA and site stakeholders updated the Site's risk assessment, which demonstrated that the remedy would remain protective under a recreational use scenario. EPA then issued an Explanation of Significant Differences to remove unnecessary remedy requirements that were impeding reuse. EPA also prepared a Ready for Reuse (RfR) Determination to address safety concerns and reassure local residents that the Site is protective for use as recreational sports fields.

THE SITE NOW: School facilities added through the redevelopment of the Site include 12 tennis courts completed in 2005, and 30 acres of soccer, field hockey and softball facilities completed in 2008. Antioch Community High School hosted the 2005 conference championships at the tennis courts on site and continues to actively use all these recreational amenities. The facilities on site also include a concession stand and restroom building to serve both students and spectators. In 2008, an opening event celebrated the completion of the Tim Osmond Park, which includes an additional 2 football fields, 1 baseball field, 2 practice fields, a Frisbee golf course, a running trail, sledding hill, pavilion and playground equipment. Area schools also use the on-site wetlands area as an environmental education resource. The U.S. Soccer Foundation donated equipment for the new soccer fields. In addition to reusing the Site as athletic fields and recreational areas, the school district also expressed interest in using methane gas produced by the landfill. Following the construction of a methane co-generation plant, methane gas extracted from the capped landfill supplies heat and electricity to the school. The school district purchases less electricity and gas than they would without the system in place. As the methane gas supply declines, individual turbines from the plant will be taken offline and sold or repurposed. The school district is also investigating additional modifications to the system.



PICTURED: A baseball field on the Tim Osmond Park. (source: EPA)

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